Mission Operations Directorate - Success Legacy of the Space Shuttle Program
(Overview of the evolution and success stories from MOD during the Space Shuttle program)

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In support of the Space Shuttle Program, as well as NASA's other human space flight programs, the Mission Operations Directorate (MOD) at the Johnson Space Center has become the world leader in human spaceflight operations. From the earliest programs - Mercury, Gemini, Apollo - through Skylab, Shuttle, ISS, and our Exploration initiatives, MOD and its predecessors have pioneered ops concepts and emphasized a history of mission leadership which has added value, maximized mission success, and built on continual improvement of the capabilities to become more efficient and effective. This paper provides specific examples that illustrate how MOD's focus on building and contributing value with diverse teams has been key to their successes both with the US space industry and the broader international community. This paper will discuss specific examples for the Plan, Train, Fly, and Facilities aspects within MOD. This paper also provides a discussion of the joint civil servant / contractor environment and the relative "badge-less society" within MOD. Several Shuttle mission related examples have also been included that encompass all of the aforementioned MOD elements and attributes, and are used to show significant MOD successes within the Shuttle Program. These examples include the STS-49 Intelsat recovery and repair, the (post-Columbia accident) TPS inspection process and the associated R-Bar Pitch Maneuver for ISS missions, and the STS-400 rescue mission preparation efforts for the Hubble Space Telescope repair mission. Since their beginning, MOD has consistently demonstrated their ability to evolve and respond to an ever changing environment, effectively prepare for the expected and successfully respond to the unexpected, and develop leaders, expertise, and a culture that has led to mission and Program success.